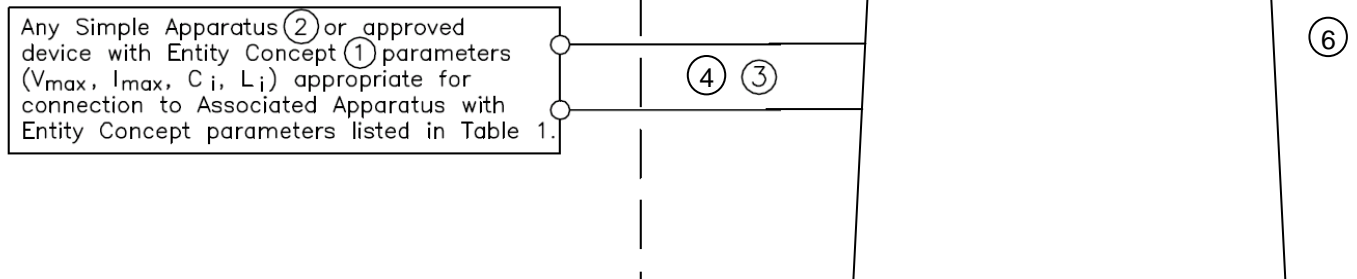


NONHAZARDOUS LOCATION
or
HAZARDOUS (CLASSIFIED) LOCATION
CLASS I, DIVISION 1, GROUPS A,B,C,D
CLASS II, DIVISION 1, GROUPS E,F,G
CLASS III, DIVISION 1
or
CLASS I, ZONE 0 and 1, IIC

NONHAZARDOUS LOCATION
or
CLASS I, DIVISION 2, GROUPS A,B,C,D
or
CLASS I, ZONE 2, GROUP IIC



NOTES:

- ① The output current of this associated apparatus is limited by a resistor such that the output voltage-current plot is a straight line drawn between open-circuit voltage and short-circuit current. The Entity Concept allows interconnection of intrinsically safe apparatus with associated apparatus not specifically examined in combination as a system when the approved values of V_{oc} (or U_o) and I_{sc} (or I_o) for the associated apparatus are less than or equal to $V_{max}(U_i)$ and $I_{max}(I_i)$ for the intrinsically safe apparatus. Capacitance and inductance of the field wiring from the intrinsically safe equipment to the associated apparatus shall be calculated and must be included in the system calculations. Cable capacitance, C_{cable} , plus intrinsically safe equipment capacitance, C_i must be less than the marked capacitance, C_a (or C_o), shown on any associated apparatus used. The same applies for inductance (L_{cable} , L_i and L_a or L_o , respectively). Where the cable capacitance and inductance per foot are not known, the following values shall be used: $C_{cable} = 60 \text{ pF/ft.}$, $L_{cable} = 0.2 \text{ } \mu\text{H/ft.}$
- ② This associated apparatus may also be connected to simple apparatus as defined in Article 504.2 and installed and temperature classified in accordance with Article 504.10(B) of the National Electrical Code (ANSI/NFPA 70), or other local codes, as applicable.
- ③ Where multiple circuits extend from the same piece of associated apparatus, they must be installed in separate cables or in one cable having suitable insulation. Refer to Article 504.30(B) of the National Electrical Code (ANSI/NFPA 70) and Instrument Society of America Recommended Practice ISA RP12.6 for installing intrinsically safe equipment.
- ④ Intrinsically safe circuits must be wired and separated in accordance with Article 504.20 of the National Electrical Code (ANSI/NFPA 70) or other local codes, as applicable.
- ⑤ Associated apparatus must be installed in an enclosure suitable for the application in accordance with the National Electrical Code (ANSI/NFPA 70) for installation in the United States, the Canadian Electrical Code for installations in Canada, or other local codes, as applicable.
- ⑥ Barriers shall not be connected to any device which uses or generates internally any voltage in excess of 250V r.m.s. or DC unless the device has been determined to adequately isolate the voltage from the barrier.
- ⑦ The permitted ambient temperature range is -20°C to 60°C .
- ⑧ The barriers are rated 'Nonincendive'. If the barriers are intended to be mounted in a Division 2 location, they must be mounted in an enclosure with a minimum ingress protection of IP2X. If the barriers are intended to be mounted in a Zone 2 location that is subject to contamination by water or dust, they must be mounted in an enclosure with a minimum ingress protection of IP54. If the barriers are intended to be mounted in a Zone 2 indoor location that is not subject to contamination by water or dust, they must be mounted in an enclosure with a minimum ingress protection of IP4X. The enclosure must be able to accept Division 2 / Zone 2 wiring methods. A temperature rating of T4 applies to all nonincendive rated barriers.

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This document contains safety-relevant information. It must not be altered without the authorization of the norm expert!				
CONFIDENTIAL acc. to ISO 16016			date: 2012-June-21	
	Control Drawing	respons.	116-0364	
	Transformer Isolated Barriers	approved		
		norm		
Worldwide			sheet 1 of 2	

Table 1 – ENTITY PARAMETERS								
MODEL NUMBER	TERMINALS	V _{oc} (V ₀) [V]	I _{sc} (I ₀) [mA]	V _t [V]	I _t [mA]	GROUPS	C _a (C ₀) [uF]	L _a (L ₀) [mH]
HiC2851* HiC2853*	5a, 5b	10.5	17.1	--	--	A,B IIC	2.41	121.5
						C,E,F,G IIB	16.8	486.3
						D IIA	75	972.7

The values of Lo and Co listed in the table above are allowed if one of the following conditions is met:

- The total Li of the external circuit (excluding the cable) is < 1% of the Lo value or
- The total Ci of the external circuit (excluding the cable) is < 1% of the Co value.


The values of Lo and Co listed in the table above shall be reduced to 50% when both of the following conditions are met:

- the total Li of the external circuit (excluding the cable) is \geq 1% of the Lo value and
- the total Ci of the external circuit (excluding the cable) is \geq 1% of the Co value.

Note: the reduced capacitance of the external circuit (including cable) shall not be greater than 1uF for IIB and 600nF for IIC.

WARNING: Substitution of components may impair intrinsic safety and suitability for Division 2/ Zone 2 hazardous (classified) Locations.

ADVERTISEMENT: La substitution de composants peut compromettre la sécurité intrinsèque.

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 PEPPERL+FUCHS	Control Drawing	respons.	116-0364
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